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MATTER IN FOUR DIMENSIONS INDUCED BY GEOMETRY OF FIVE DIMENSIONS

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ABSTRACT

In this paper induced matter theory is studied. It is shown how matter in 4D can be interpreted as a manifestation of 5D geometry. A new solution is presented which generalizes the well known Ponce de Leon solution. Some properties of the new solution are discussed.

KEYWORDS: Kaluza-Klein Theory, Extra Dimension, Induced Matter Theory, Ricci Flat, Energy-Momentum Tensor, Klein-Gordon Equation, Robertson-Walker Metric, Equation of State